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Staff Presentation  
Workshop Report on Distributed Generation  
Interconnection Rules

*Presented at Siting Committee Hearing  
99-DIST-GEN(2)*

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California Energy Commission  
April 25, 2000

# Acknowledgements

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## ¥ **Staff Responsible for Preparation of Report**

- Judy Grau, Pramod Kulkarni, Jeff Ogata, and Scott Tomashefsky
- FOCUS Contract:     Jon Edwards, Contract Manager  
                                 Joe Diamond, Technical Analyst

## ¥ **FOCUS Team**

- Bill Brooks, Cris Cooley, MikeEdds, Edan Prabhu, Chuck Whitaker

## ¥ **Key Stakeholders**

- Tom Dossey, Gerry Torribio, David Townley, Dylan Savidge, Peter Ouborg, Nat Treadway

## Significant Errata to Workshop Report

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- ¥ Figure 1 - Initial Review Process (Page 15)
  - Report omitted screen associated with aggregated load on a distribution line being less than 15% of total load.
- ¥ Omitted Comment Regarding Effect of Rule 21 on Current Rule 21 Language
  - SDG&E has expressed a desire to retain unique aspects of its current Rule language that are not part of the proposed Rule 21 language.
    - ¥ SDG&E intends to incorporate once CPUC adopts new Rule language
    - ¥ Other utilities may have similar desires but issue was not raised during working group discussions.
  - Bottom Line: SDG&E believes this action will not take away from the spirit of standardizing rule language.

# Staff Workshop Report Outline

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- ¥ Introduction
- ¥ Overview of Workshop Process
- ¥ Responsiveness of Workshop Process to CPUC OIR
- ¥ Rule 21 Overview and Discussion
- ¥ Other Issues of Concern
- ¥ Staff Recommendations
- ¥ Next Steps
- ¥ Attachments
  - Rule 21 Compilation Document
  - Sample Application Forms and Interconnection Agreements

# Introduction

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## ¥ **Report Goal**

- Provide Committee with proposed Rule language that could apply to all distributed generators seeking to interconnect with CPUC-regulated utilities.

## ¥ **Guiding Principles**

- Rules, protocols and processes should be clear and transparent.
- Rules should be technology neutral, except when differences are fully justified.
- A level playing field should be established for all DG providers.
- Rules should be uniform throughout California.
- UDCs should be fairly compensated for distribution services that support DG installations and customers.

## Overview of Workshop Process

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- ¥ Process began with December 1999 Siting Committee workshop and subsequent order establishing working groups.
- ¥ Eight working group meetings held during January - March.
  - Approximately 75 people actively participated in working group process.
    - ¥ Utilities, manufacturers, marketers, small consumers represented.
    - ¥ Much needed support provided under PIER contract with Onsite Syscom
    - ¥ Subgroups met another 20 times to discuss specific issues.
  - Meetings moderated/facilitated by Energy Commission staff.
- ¥ Working group focus on developing Rule 21 tariff language for CPUC consideration.
  - Work consistent with principles outlined in December 1999 Siting Committee order and CPUC Rulemaking.

## Responsiveness of Workshop Process to CPUC OIR

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- ¥ Process responds to each of the 13 interconnection issues raised in CPUC Rulemaking R.99-10-025.
- ¥ Notables
  - OIR Topic #6 (Need to Develop California Standards)
    - ¥ Although national efforts began before California effort started, most technical working group members believe that California standards will be put in place ahead of national standards.
    - ¥ IEEE effort only focuses on technical aspects of interconnection. California's focus has been on technical and non-technical areas.

## Rule 21 Overview

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- ¥ Applicability and Introductions
- ¥ General Rules, Rights, and Obligations
- ¥ Application and Interconnection Process
- ¥ Generating Facility Design and Operation Requirement
- ¥ Interconnection Facility Ownership and Financing
- ¥ Metering, Monitoring, and Telemetry
- ¥ Dispute Resolution Process
- ¥ Definitions
- ¥ Appendices
  - Initial Review Process
  - Testing and Certification



## Rule 21 Overview - Section 1

### Applicability and Introductions

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- ¥ Objective: Identify parties subject to Rule 21.
  - Only applies to utilities under CPUC jurisdiction
  - Doesn't apply to municipalities and irrigation districts
  
- ¥ No major concerns voiced by parties.

## Rule 21 Overview - Section 2

### General Rules, Rights, and Obligations

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- ¥ Objective: Provide general rules applicable to the interconnection application process and procedures associated with design, safe operation, curtailment, and disconnection provisions of the Rule.
- ¥ Principles generally accepted by the group with noted exceptions.
- ¥ Concerns expressed with respect to:
  - Section 2.4 Compliance with Laws, Rules, and Tariffs
  - Section 2.7 Confidentiality of Information
  - Section 2.10 Curtailment/Disconnection Rules

## Rule 21 Overview - Section 3

### Application and Interconnection Process

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- ¥ Objective: Details steps necessary for a distributed generator to connect to an Electrical Corporation.
- ¥ Initial Review Process concept generally endorsed by the group with noted exceptions.
- ¥ Concerns expressed with respect to:
  - Firm dates for interconnection application reviews.
  - The calculation of interconnection study costs.
  - Whether the ISO should be notified when an application is submitted and when an application is completed.

## Rule 21 Overview - Section 4

### Generating Facility Design and Operating Requirements

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- ¥ Objective: Provide technical framework for the interconnection process.
- ¥ Work focused on ensuring technical consistency with the Initial Review Process contained in Section 3.
- ¥ Concerns expressed with respect to:
  - Lack of input from non-technical participants in working group process.

## Rule 21 Overview - Section 5

### Interconnection Facility Ownership and Financing

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- ¥ Objective: Determine cost responsibility for interconnection.
- ¥ Language in this section reflects how cost allocation is currently instituted.
  - Designed to provide a cost allocation method during period between when the proposed Rule language is adopted and when the CPUC addresses cost allocation questions.
- ¥ Concerns expressed with respect to:
  - Some concerns about who bears the cost for system modifications.

## Rule 21 Overview - Section 6

### Metering, Monitoring, and Telemetry

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- ¥ Objective: To respond to the need for requiring advanced metering equipment in order to efficiently schedule and dispatch distributed generation.
- ¥ Lots of disagreement about whether net generation metering is required.
- ¥ More detailed discussion forthcoming later in the hearing.

## Rule 21 Overview - Section 7 Dispute Resolution Process

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- ¥ Objective: Develop a process for parties to resolve interconnection issues.
- ¥ Disputing parties have 45 calendar days to resolve among themselves.
  - Otherwise, CPUC current dispute rules apply.
- ¥ Concerns expressed with respect to:
  - Dispute process skewed in favor of the utility.

## Rule 21 Overview - Section 8 Definitions

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- ¥ Objective: Develop consistent terminology for Rule language.
- ¥ Over 50 definitions developed.
- ¥ Parties generally comfortable with extent of definitions although receptive to additional terms if necessary.



## Rule 21 Overview - Appendices

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### ¥ Appendix A: Rule 21 Compilation Document

- Contains proposed Rule language with alternative opinions stated by parties who may either not agree with language or wish to add some further elaboration for the Committee.

### ¥ Appendix B: Testing and Certification Process

- Describes procedures by which distributed generating equipment can be tested and qualify as certified as valid for connection to the utility system.
  - ¥ Evolving process.

## Other Issues of Concern

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- ¥ Interconnection Agreements and Sample Applications
- ¥ Lack of Balanced Representation
- ¥ Forum for Address Future Changes to Rule 21
- ¥ Extending Rules to Municipalities and Irrigation Districts
- ¥ Monitoring the Development of Distributed Generation

## Staff Recommendations to Committee

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- ¥ Endorse language in Sections 1, 3, 5, 7, 8.
  - Specifically endorse concept of *Initial Review Process*.
- ¥ Endorse Section 4 language subject to issues raised in written comments due on May 2nd.
- ¥ Sections with Contentious Issues...
  - Section 2: Endorse Sections 2.1-2.3, 2.5, 2.6, 2.8, and 2.9 and further consider debate regarding 2.4, 2.7, and 2.10.
  - Section 6: Endorse Sections 6.1, 6.2, 6.5, and 6.6 and further consider debate regarding 6.3 and 6.4.
- ¥ Recommend that Energy Commission commit to work with the California Municipal Utilities Association to encourage municipalities and irrigation districts to adopt Rule 21-type language.

## Next Steps

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### **At the Energy Commission...**

- 5/2      Written comments due from parties
- 5/31      Committee recommendation submitted to Energy Commission
- 6/28      Anticipated adoption of Energy Commission recommendation at  
Business Meeting

### **At the CPUC...**

- 7/21(Approx)      Written comments from parties about Energy  
Commission process and factual misrepresentations
- Nov (or Earlier)      ALJ Proposed Decision